



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/638,491	08/15/2000	Michael Feldman	N298.12-0001	1274

164 7590 04/07/2005

KINNEY & LANGE, P.A.
THE KINNEY & LANGE BUILDING
312 SOUTH THIRD STREET
MINNEAPOLIS, MN 55415-1002

EXAMINER

INGBERG, TODD D

ART UNIT	PAPER NUMBER
----------	--------------

2193

DATE MAILED: 04/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/638,491	Applicant(s) FELDMAN, MICHAEL	
	Examiner Todd Ingberg	Art Unit 2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 9/8/2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 28-53 is/are pending in the application.
- 4a) Of the above claim(s) 1-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 28-53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2193

DETAILED ACTION

Claims 1 – 25 have been canceled.

Claims 26-27 have been withdrawn.

Claims 28 – 53 have been added.

Claims 28 – 53 have been examined.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 28 – 53 are rejected under 35 U.S.C. 102(b) as being anticipated by Template Software Inc.

The **Template** product line contains:

The SNAP programming language (One manual used)

The Workflow Template (Two manuals used)

The Web Component (Not used in this Office Action)

These three layered products work together.

The documentation sets for the products contains the following manuals.

SNAP released June 1997

SNAP Language Reference (Not used in this Office Action)

Using the SNAP Language (Not used in this Office Action)

Art Unit: 2193

Using the SNAP Communication Component (Referred to as **COM**)

Using the SNAP Graphic User Interface Component (Not used in this Office Action)

Getting Started with SNAP (Not used in this Office Action)

Using the SNAP Display Editors (Not used in this Office Action)

SNAP Class Library Reference (Not used in this Office Action)

Using the SNAP External Application Software Component (Not used in this Office Action)

Using the SNAP Development Environment (Not used in this Office Action)

SNAP Module Library Reference (Not used in this Office Action)

Using the SNAP Permanent Storage Component (Not used in this Office Action)

Workflow released September 1997

Developing a WFT Workflow System (Referred to as **WFT**)

Using the WFT Development Environment (Referred to as **Using**)

WFT Library Reference (Not used in this Office Action)

Web Component

Using the Web Component (Not used in this Office Action)

Training Manuals

Workflow Template Training Course Version 8.0, 1997 (Section B, Referred to as **Train**).

Since, these products work together they constitute a single reference and can be used as the basis for a rejection based on anticipated by a product offering. Furthermore, with the 1997 press release announcing version 8.0 these considered prior art under *In re Epstein* 31 USPQ2d 1817 (decided August 17, 1994) with a 1997 release date despite the 1998 copyright date.

Art Unit: 2193

Claim 28

Template anticipates an architecture for developing a distributed information system (Template , Workflow System as described in the manuals made of record, **Using** , Chapter 3, Overview), the architecture comprising: a component development tool for generating a plurality of components (**Using**, Workflow Design Editor, Chapter 3 and Task Editor, Chapter 6), that implement and consume services (**Using**, Object Oriented Implementation – messaging is inherent in object technology, page 4-41, functions and **WFT**, messaging from objects to object both local on the same machine or on the net – Note one of ordinary skill in the art knows messages are the result of using methods – called functions in Template manual, page 7-23); ; a system development tool for defining a plurality of component instances based on the plurality of components (**Using** , instantiation of objects from the classes linked by inheritance, page 4-20), configuring the plurality of component instances, and defining links between component instances, without requiring writing of additional code (Ability to instantiate another instance of an object does not require additional code just execution of existing code- Instantiation is inherent in object technology) ; and an engine software (**WFT**, every where an object can be instantiated is a software engine) program to provide a dynamic run-time environment for hosting the plurality of component instances and supporting communication between component instances. (**COM** , communications support, page 4-8).

Examiner's Response

A good overview of the Workflow system is found in **WFT** Chapter 2). Both the **WFT** and **Using** manuals document the commercial product by Template System.

Claim 29

The architecture of claim 28, further comprising: a service definition tool for generating service protocols that are implemented by components, the service protocols defining a format of messages to be sent between ports of component instances (**Using**, Object Oriented Implementation – messaging is inherent in object technology, page 4-41, functions and **WFT**, messaging from objects to object both local on the same machine or on the net – Note one of ordinary skill in the art knows messages are the result of using methods – called functions in Template manual, page 7-23); and wherein links defined between component instances are defined between the ports of component instances (**WFT** , flows 3-25 to 3-34 between nodes, pages 4-13 to 4-19).

Examiner's Response

The methods that send messages and receive messages and the ability to define the communications among objects.

Claim 30

The architecture of claim 28, wherein the component development tool provides the capability of representing components as a first and a second plurality of components, each component in the first plurality of components representing a physical entity in the distributed information system, and each component in the second plurality of components representing a logical entity in the distributed information system. (**Using**, Applications, Chapter 7 and 7-3, figure 7-1).

Examiner's Response

Art Unit: 2193

WFT also page 2-9 shows the logical view of the workflow system. Note the ROLES of Employee, Manager etc. WFT, page 7-56 to 7-62 covers distributed workflow systems, Chapter 7 covers the deployment which covers the physical topology of the network of the Workflow system.

Claim 31

The architecture of claim 29, wherein each of the ports comprises either a service provider port or a service consumer port (**Using** , tasks to perform tasks on work flow item are contained on consumer node, see Chapter 6 for Task Editor and chapter 7 for the Application Editor and COM, getters and setter, objects in object technology page 4-20 , 4-29 to 4-31).

Claim 32

The architecture of claim 31, wherein service provider ports and service consumer ports based on the same service protocol are complementary.

Examiner's Response

Messaging is inherent in object oriented technology and should have been well known to one of less than ordinary skill in the art well before the time of invention. When Applicant states the "same service protocol are complementary", the Examiner regards the word "complementary" as the word inherent. One can not take messaging out of object technology it is part of object oriented technology by definition.

Claim 33

The architecture of claim 32, wherein the system development tool only allows links to be defined between service provider ports and complementary service consumer ports (COM, getters and setter, objects in object technology page 4-20 , 4-29 to 4-31).

Examiner's Response

A getter message invokes a different method than a setter message.

Claim 34

The architecture of claim 28, wherein each of the plurality of component instances is self-sufficient.

Examiner's Response

An object by definition. The lifecycle of an object being instantiated until it is destroyed. Applicant has made claim to an inherent aspect of object technology.

Claim 35

The architecture of claim 34, wherein the only dependencies between component instances are logical dependencies (**Using** , flows between Applications, as per claim 4, pages 3-25 to 3-34 and WFT , flows 3-25 to 3-34 between nodes, pages 4-13 to 4-19).

Examiner's Response

The logic is how the nodes communicate with each other. Messages are sent among objects.

Claim 36

Art Unit: 2193

The architecture of claim 33, wherein a component instance includes at least one service provider port that allows multiple simultaneous links with complementary service consumer ports (**WFT**, ability for a node to communicate with multiple nodes, page 7-23 Peer to Peer).

Claim 37

The architecture of claim 33, wherein component instances are executed concurrently (**Using**, executing the methods of an object concurrently, page 4-41), and wherein the communications between service provider ports and complementary service consumer ports are asynchronous (**COM**, where communications over net is asynchronous, pages 4-13 and page 11-4 and Appendix B – connection oriented).

Examiner's Response

Applicant has made claim to another inherent aspect of object technology.

Claim 38

The architecture of claim 28, wherein the engine software program runs on each of a plurality of networked nodes (**Using**, deployment editor, Chapter 8 and **WFT**, page 7-1 to 7-7).

Examiner's Response

The Template system is a distributed Workflow system. The Application editor is designed to define the abilities of nodes.

Claim 39

The architecture of claim 38, wherein the system development tool represents the distributed information system as a single entity, regardless of physical node and network composition into which the component instances will be deployed (**WFT**, page 2-4, Figure 2-1, the actual deployment of the different ROLES is viewed as a single entity even thou the ROLES can be distributed on different nodes)

Examiner's Response

The Workflow Design Editor (WDE) is intended to be used by the domain expert (**Train** Section B, page 5).

Claim 40

The architecture of claim 38, wherein the system development tool deploys each component instance to one of the plurality of networked nodes. (**Using**, deployment editor, Chapter 8 – see page 8-10).

Claim 41

The architecture of claim 38, and further comprising a local repository on each of the plurality of nodes, the local repository on each node storing data defining the component instances deployed to and hosted by that node and storing link data for the component instances deployed to and hosted by that node (**Using**, deployment editor, Chapter 8 – see pages 8-10 to 8-12 commands in editor).

Claim 42

Art Unit: 2193.

The architecture of claim 39, wherein the system development tool allows changes to be made to the component instances deployed to and hosted by the plurality of networked nodes and allows changes to be made to links between the component instances deployed to and hosted by the plurality of networked nodes. As per claim 41.

Claim 43

The architecture of claim 42, wherein the system development tool allows changes to be made to the component instances and allows changes to be made to links between the component instances, without requiring writing of additional code, wherein the system development tool allows the changes to be made while the distributed information system is running.

Examiner's Response

As per claims 28 and 42.

Claim 44

The architecture of claim 43, wherein the system development tool allows deletion of the component instances deployed to and hosted by the plurality of networked nodes and allows deletion of communication links between the component instances deployed to and hosted by the plurality of networked nodes, wherein the system development tool allows the deletions to occur while the distributed information system is running. As per claim 41, deployment editor.

Claim 45

The architecture of claim 29, and further comprising a central system repository for storing the components, the component instances, link data, infrastructure configuration and configuration data for the service protocols.

Examiner's Response

As per claim 28 and WFT, Chapter 7, Deploying Server.

Claim 46

The architecture of claim 28, wherein at least one of the component instances supports continuous activities internally. An object as per claim 34.

Claim 47

The architecture of claim 28, wherein each of the component instances is configurable to participate in activities that are collectively performed by multiple component instances.

Examiner's Response

As per claims 28 and 41. The defining of a Workflow System and deploying it.

Claim 48

The architecture of claim 28, wherein the only dependencies between component instances that are linked to each other are logical dependencies implemented using the component development tool. As per claim 41, deployment editor.

Claim 49

Art Unit: 2193

Template anticipates an architecture for developing a distributed information system(As per claim 28), the architecture comprising: a component development tool for generating components that implement and consume services(As per claim 28); a system development tool for defining a plurality of component instances based on the plurality of components(As per claim 28), configuring the plurality of component instances, and defining links between component instances(As per claim 28); and an engine software program to provide a programmable run-time environment for hosting the plurality of component instances(As per claim 28) and implementing the links to provide bi-directional communication paths between the plurality of component instances(**WFT** , ability for bi-directional communication paths between linked ports is a result of peer to peer communications, page 7-23 Peer to Peer).

Claim 50

The architecture of claim 49, further comprising a service definition tool for generating service protocols which define a format of messages to be sent through a plurality of ports, each port being associated with a component instance.

Examiner's Response

Messages and getters and setters as per claims 28 and 31.

Claim 51

The architecture of claim 49, wherein the engine software program provides the bidirectional communication paths between linked ports (**WFT** , ability for bi-directional communication paths between linked ports is a result of peer to peer communications, page 7-23 Peer to Peer).

Claim 52

The architecture of claim 49, further comprising a plurality of networked nodes running the engine software program, wherein the engine software dynamically manages ports and links (**WFT** , flows 3-25 to 3-34 between nodes, pages 4-13 to 4-19) for the component instances across the plurality of networked nodes. (**COM**, page 4-8 ability to handle messaging and object transmission, **WFT**, messaging from objects to object both local on the same machine or on the net – Note one of ordinary skill in the art knows messages are the result of using methods – called functions in Template manual, page 7-23).

Claim 53

The architecture of claim 49, wherein the component development tool is designed to be operated by a person skilled in computer programming.

Examiner's Response

Train, page 5 states the domain expert does not need to know about SNAP. SNAP is a programming language. The SNAP programmer does need to be skilled in computer programming.

Claim 54

The architecture of claim 49, wherein the system development tool is designed to be operated by a person without skill in the art of computer programming.

Art Unit: 2193

Examiner's Response

As per claim 53

Claim 55

The architecture of claim 49, wherein any component instance having a consumer port that complies with a first service protocol may be configured to communicate with any component instance having a provider port that also complies with the first service protocol.

Examiner's Response

Messages as per claims 28 and 29.

Response to Arguments

3. Applicant's arguments filed September 8, 2004 have been fully considered but they are not persuasive.

Applicant's Statement

"New Claims

With this amendment, new claims 28-55 have been added. It is respectfully submitted that new independent claims 28 and 49, and dependent claims 29-48 and 50-55, are allowable over the prior art."

Applicant's Argument

"One of the features presented in new independent claim 28 is a system development tool for defining component instances, configuring component instances, and defining links between component instances, all without requiring writing of additional code. As described in the specification, for example at page 5, lines 2-6, systems of the prior art utilize components as application parts that are glued together by application code. The present invention does not require complex glue code. Instead, an engine software program provides a run-time environment which supports communication between component instances."

Examiner's Response

The Template system is an object oriented computer assisted software engineering (OO-CASE) tool. At run time, additional components can be instantiated. One of the very basic principles of object technology.

As early as development time (concepts and analysis and design phase), the Template system has a WDE which is intended for the domain expert to design their workflow. A model that generates code. The workflow model is immediately able to be executed in the Simulator. All this does not require a programmer. Programmers can access the development environment through the SNAP programming language directly or through the Workflow layer residing on top of the SNAP programming language).

Applicant's Argument

Art Unit: 2193

“Template Software Inc. does not disclose, teach, or suggest a system development tool for defining component instances, configuring component instances, and defining links between component instances, without requiring writing of additional code. Therefore, independent claim 28 is allowable.”

Examiner's Response

In the broadest reasonable interpretation in view of the Specification the Applicant is claiming the more basic concepts of object-oriented technology.

defining component instances – defining an object is defining a component.

configuring component instances – writing methods that get and set values in configuring component instances.

defining links between component instances – messaging defines links between component instances and is one of the inherent aspects of object technology.

without requiring writing of additional code – The basic concept of instantiation creates components without requiring additional code.

Applicant's Argument

“Independent claim 49 presents additional features of the present invention that are unknown in the prior art. For example, claim 49 includes an engine software program to provide a programmable run-time environment for hosting the plurality of component instances and implementing the links to provide bi-directional communication paths between the plurality of component instances.”

Examiner's Response

Messaging is an inherent principle of object technology and provides -directional communication paths between the plurality of component instances.

Applicant's Argument

“Prior systems, as described above, required glue code to connect components and make them function. Communication between components was hard coded into a monolithic application. The present invention provides a benefit over the prior art in that this coding is not required. Instead, the engine software provides a programmable run-time environment for hosting the component instances. In addition, communication between component instances is implemented by the engine software at any location where a link is defined in the system development tool. In other words, a domain expert/user does not need to write code, but rather can simply place links between components to define a bi-directional communication path. The bi-directional communication path is then implemented by the engine software.”

Examiner's Response

Examiner answered this in response above.

Applicant's Argument

“Template Software Inc. does not disclose, teach, or suggest an engine software program to provide a programmable run-time environment for hosting the plurality of component instances and implementing the links to provide bi-directional communication paths between the plurality of component instances. Therefore, independent claim 49 is allowable.”

Examiner's Response

Art Unit: 2193

This is the express written opinion of the Applicant about a commercial product for sale and for use in 1997, and not the position or opinion of the United States Patent Office.

Please, note, The person of ordinary skill is a hypothetical person who is presumed to be aware of all the pertinent prior art (PHOSITA). *Customer Accessories, Inc. v Jeffrey-Allan Ind. Inc.*, 1 USPQ2d 1196 (Federal Circuit 1986).

Applicant's Argument

"Claims 29-48 and 50-55 depend from allowable independent claims 28 and 49 respectively and are therefore allowable."

Examiner's Response

For the same reasons the dependent claims are not allowable the dependent claims are not allowable.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

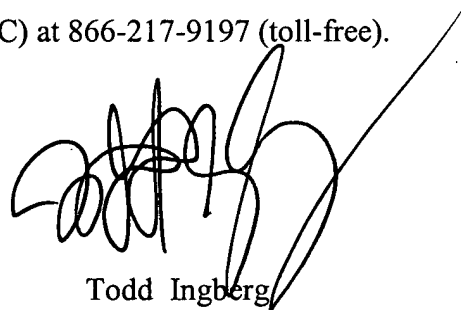
Correspondence Information

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Todd Ingberg whose telephone number is (571) 272-3723. The examiner can normally be reached on during the work week..

Art Unit: 2193

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (571) 272-3719. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Todd Ingberg', with a long, sweeping line extending from the end of the signature towards the top right of the page.

Todd Ingberg
Primary Examiner
Art Unit 2193

TI